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ABSTRACT OF THE DISCLOSURE

5 In one aspect the invention provides a method  
for laser induced breakdown of a material with a pulsed  
laser beam where the material is characterized by a  
relationship of fluence breakdown threshold ( $F_{th}$ ) versus  
laser beam pulse width (T) that exhibits an abrupt,  
rapid, and distinct change or at least a clearly  
10 detectable and distinct change in slope at a  
predetermined laser pulse width value. The method  
comprises generating a beam of laser pulses in which each  
pulse has a pulse width equal to or less than the  
predetermined laser pulse width value. The beam is  
15 focused to a point at or beneath the surface of a  
material where laser induced breakdown is desired.

The beam may be used in combination with a mask  
in the beam path. The beam or mask may be moved in the x,  
y, and z directions to produce desired features. The  
20 technique can produce features smaller than the spot size  
and Rayleigh range due to enhanced damage threshold  
accuracy in the short pulse regime.